TY OF CHICAGO EPARTMENT OF PURCHASES. **ONTRACTS AND SUPPLIES** OOM 403, CITY HALL, 121 N. LA SALLE ST.

JUSTIFICATION FOR NON-COMPETITIVE PROCUREMENT

COMPA CITATION OF THE STATE OF	~_ ~ _>
OMPLETE THIS SECTION IF NEW CONTRACT(S) r contract(s) in this request, answer applicable questions in ea	ch of the 4 major subject areas below in accordance with the
structions for Preparation of Non-Competitive Procurement Fo	orm on the reverse side.
equest that negotiations be conducted only with MotoRola (Name of rein. is is a request for: (One-Time Contract per Requisition Delegate Agency, this	# /666/ copy attached) or Term Agreement s request is for "blanket approval" of all contracts within the
(Attach List)	Pre-Assigned Specification No. 28 728 Pre-Assigned Contract No.
(Program Name)	-
OMPLETE THIS SECTION IF AMENDMENT OR MODI escribe in detail the change in terms of dollars, time period, so and the specific reasons for the change. Indicate both the origina ith this change, as applicable. Attach copy of all supporting codification to the following:	ope of services, etc., its relationship to the original contract
Contract #: Company or Age	ncy Name:
Contract or Prog	rram Description:
Specification #: Contract or Prog Mod #: (Attach List, if multiple)	/ :
ROCHEITE SIMEON 6-9417 VOCAULA Originator Name Telephone Sign Indicate SEE ATTACHED in each box below if additional space	e funes OEMC 9-28-0-P nature Department Date
() PROCUREMENT HISTORY SEE JU	stification
() ESTIMATED COST	
() SCHEDULE REQUIREMENTS	
() EXCLUSIVE OR UNIQUE CAPABILITY	
()OTHER	
APPROVED BY: DEPARTMENT HEAD DA	1 0 4 ATE BOARD CHAIRPERSON DATE

DEPARTMENT HEAD

OR DESIGNEE

ATTACHMENT OFFICE OF EMERGENCY MANAGEMENT COMMUNICATIONS JUSTIFICATION FOR NON-COMPETITIVE PROCUREMENT MOTOROLA RADIO COMMUNICATIONS EQUIPMENT

PROCUREMENT HISTORY

Since 1956, Chicago's Public Safety Departments have utilized Motorola radio equipment to support communications at the scene of Police, Fire, and Medical emergencies. Of the 6000 inventoried Police transceivers and 2300 inventoried Fire transceivers over 95% have been purchased from Motorola Inc. These radios have a history of exceptional performance and reliability, being able to withstand the severe environmental hazards associate with law enforcement and firefighting, and the severe operating requirements of the Bureau of Emergency Medical Services.

Motorola is the only 2-way radio equipment manufacturer with corporate headquarters, complete factory facilities, and a major parts distribution depot in the Chicago Metropolitan Area. This provides the Department with the advantage of being able to receive technical consultation, engineering, or specialized parts on a very short notice. No other major radio equipment manufacturer has factory facilities, or a major parts depot in this area and several have their manufacturing facilities in distant foreign countries, a factor which can delay or hamper product support.

The Chicago Police and Fire Departments have procured radio equipment annually for over thirty years. Radios are purchased in accordance with scheduled replacement programs based on the anticipated useful service life of the equipment. Portable transceivers are replaced every seven years because of the severe environmental and physical conditions encountered with their use by police officers, firefighters and paramedics. Mobile Radio equipment is replaced every ten years in accordance with a planned vehicle replacement program. Fixed location radio equipment such as, base stations, control stations and satellite receivers are the heart of the voice and data communication systems, and are replaced every 10 - 12 years, or sooner if necessitated by system level upgrades, or a change in technical requirements dictated by the Federal Communications Commission (FCC).

In 1992, a multi-year term agreement was established for the purchase of Motorola radios that had unique requirements with respect to public safety communications' applications. During the life of this term agreement, the Police and Fire Departments were able to expeditiously procure over five million dollars worth of radio equipment at discount level pricing. ALL of the radio equipment proposed for inclusion in this multi-year tern agreement consists of additional base stations and transceivers needed to supplement systems and equipment that were originally purchased as the result of a specification driven competitive procurement. In 1989, individual specifications were prepared and advertised for each type of radio component (base stations, control stations, mobile transceivers and receivers). Proposals were received and evaluated and the only company that submitted a responsible bid was Motorola Inc. More often than not, other radio equipment manufacturers do not on our requirements because they **choose not to manufacture** equipment that meets our technical and operational standards.

Public Safety communications officials of both the Police and Fire Departments continually search for additional sources of technically suitable radio equipment. Members of the Police Department's Office of Emergency Communications and Bureau of Support Services regularly attend seminars and presentations sponsored by other radio equipment manufacturers, but have not been able to find cost effective products which are technically **compliant** and **satisfy end-user operational requirements.**

We believe that the procurement process for radio equipment has been improved substantially with the establishment of the multi-year term agreement with Motorola, Inc. We believe that this agreement has allowed us to purchase needed radio equipment much more expeditiously, has provided the City with the opportunity to receive maximum discounts, and has ensured that new equipment is fully compatible with existing system technical and interfacing requirements and purchased products infrastructure.

ESTIMATED COST:

During the life of the initial term agreement, the Police and Fire Department were able to purchase a considerable amount of radio equipment at discount pricing. Motorola's pricing in all cases meets or exceeds the level of discounts granted in the State of Illinois statewide radio purchase agreement. The pricing in the State agreement is determined as a result of a competitive procurement process. Motorola verifies that discounts of 15 to 35% off the list price are applied to each item in the agreement with the estimated purchase quantity determining the level of discount. This process allows the City to take advantage of the maximum rate of discount for an item based on maximum estimated quantity as opposed to little, or no discount that would be realized on a piece-meal purchase. The term agreement was used extensively during the years 1992 to 1996 to purchase Motorola Radio Equipment. The Police Department purchased \$5,243,000.00 worth of radio equipment and the Fire Department purchased \$405,424.00 worth of radio equipment during the life of the contract. The ability to utilize this contract resulted in a savings to the City of at least \$1,400,00.00, based on an average price discount rate of 25%.

SCHEDULE REQUIREMENTS:

The most profound advantage of the Motorola Term Agreement for the purchase of radio equipment is the ability to purchase radio promptly in response to changing operational needs. Special events and functions occur that require an increased Public Safety presence. Personnel must have radio equipment that is compatible with the system and ready to operate. With the term agreement, radio equipment can be purchased within thirty days. The standard procurement process with specification development, competitive procurement and bid evaluation can take considerably longer and requires extensive hours of additional effort. The Police Department will be establishing at least one to three new radio zones this year. The Fire Department will be outfitting a number of new firefighting and emergency medical vehicles. Both of these activities are scheduled for completion soon, and both will require the purchase of additional Motorola radio equipment.

If the department is not able to procure this radio equipment by the scheduled completion date, communications could be delayed or interrupted on a t least two of the Police Department's radio zones, and the Fire Department may not be able to activate new Fire and EMS vehicles because of a lack of radio equipment. In addition, the hand held radio equipment carried by Police Officers, Fire Fighters, and Paramedics may have to operate beyond its useful service life, which diminishes its reliability. This could cause an interruption to critical communications at the scene of emergencies.

EXCLUSIVE or UNIQUE CAPABILITY:

A) BASE STATIONS/CONTROL STATIONS:

The base station is the most technically critical element in any radio communications system, and consists of companion high power transmitters and receivers enclosed in a secure cabinet which is installed in high rise buildings at strategic locations throughout the City. Only Motorola has continually updated the design of its base stations, producing a very compact unit that incorporates advanced engineering and can be stacked three-high at space restricted high-rise radio sites. The base stations of other manufacturers incorporates more traditional design technology, are larger and more cumbersome to handle, and simply will not fit into many of our established site facilities.

Motorola base stations are equipped with unique programming and remote diagnostic capabilities which can be queried from a centrally located electronic testing console. The base stations are continually monitored by technicians using special software programs to ensure that the transmitters are operating within specified critical tolerances. If the base stations of another equipment manufacturer were purchased, a complete new set of testing and diagnostic monitoring equipment would have to be purchased for twenty major fixed radio equipment sites at a cost of more than \$20,000.00 per site.

The activation of Chicago's new \$217 million dollar 9-1-1 Emergency Communications facility and fiber optic cable network will allow the Fire Department to implement simulcasting on its fire and emergency transmitter networks. The Motorola transmitters and base stations purchased on the term agreement incorporates special high stability oscillators which are essential to the inclusion of simulcasting capability. The base stations of other manufacturers are not readily adaptable for this simulcasting requirement.

B) MOBILE TRANSCEIVERS:

Motorola mobile transceivers used by the Police and Fire Departments transmit a unique emergency identification code which can only be read by Motorola decoders already in place in our dispatch facilities. If the mobiles of another manufacturer were purchased, they would generate a different proprietary identification code which could not be read by our present installed decoding equipment. An entire set of console decoding equipment would have to be purchased at a considerable cost.

Motorola Spectra and Syntor X 9000 mobile transceivers are the only units which offers a straightforward eleven character, large font, alphanumeric display of the active channels name. This is extremely important to a Firefighter or Paramedic trying to quickly identify the proper fire hospital channel on which to transmit a critical message.

The Motorola telemetry mobile transceiver/repeater has a highly specialized control configuration with custom labeling designed to provide Paramedics with a straightforward selection of the appropriate resource hospital for biomedical communications (EKG etc.) No other radio equipment manufacturer will design or sell a control head configuration which is functionally compatible with our present resource hospital system.

The Motorola STX mobile transceiver uses proprietary software to operate in a trunked radio system. This software is used by the transceiver to process talk group or channel selection and also permits the transceiver to operate in an encrypted or "secure" mode. No other manufacture's trunked radio equipment is compatible with the unique proprietary software used in the MOTOROLA trunked radio system. Purchase of another manufacture's trunked transceiver would require total replacement of the entire system to achieve operating compatibility.

C) PORTABLE TRANSCEIVERS:

Portable transceivers utilized by the Fire Department must be submersible because they must withstand the potential for water damage during firefighting operations. In addition, if a handheld radio becomes contaminated by asbestos, it must be sprayed with high pressure solvent to remove the offending particles. The submersible Motorola Saber portable is the only radio manufactured with satisfies these unique water resistant requirements.

Motorola Saber portables transmits a unique identification code using proprietary MDC1200 signaling format. Concurrent with our initial purchase of Saber Portables in 1989 we installed special equipment in our dispatch center radio consoles that decodes this special identification code to insure the safety of the personnel using the transmitting unit, under conditions where speech may not be practical or understandable. If equipment was purchased from another manufacturer with a different signaling format., additional console decoding equipment would have to be purchased at considerable costs.

In addition, the CAD vendor assigned to the 9-1-1- project has already written translation software at considerable expense to present accurate company and unit identification information in the computer programs at the dispatch consoles. This information is critical in identifying which Police unit or Fire company is in need of immediate assistance.

Motorola Saber portables incorporate controls that allow Firefighters and Paramedics to select channels in total darkness by the touch method. In 1987 we purchased portables made by another radio manufacturer and found that the controls were poorly designed that the radios would often change channels by themselves when carried under protective clothing.

D) <u>SATELLITE RECEIVER/COMPARABLES</u>

The Motorola Spectra TAC receivers used at our base sites are only compatible with the Spectra TAC and DigiTAC comparator systems installed in our dispatch facilities. The use of a different manufacturer's equipment at either end will defeat encryption capability and impede the migration to digital technology. Use of alternate components would comprise the quality of the received signal and impair communications.

A complete satellite receiver testing system is installed and operating at the new Chicago Office of Emergency Management and Communications Center. This system was purchased specifically to test Motorola satellite receivers, and utilized proprietary software to communicate with each satellite receiver at pre-determined intervals to ensure that proper audio levels and receiver sensitivity are maintained at all times. If satellite receivers from another manufacturer were purchased and installed, the receiver testing system would require extensive modification at a cost in excess of \$100,000.00 to be able to continue testing all receivers.

The Motorola Monitor receiver is the only two-frequency monitor receiver that can be worn on the belt. It allows our Fire incident commanders to monitor both an operations channel and a fire-ground channel with a single compact communications device.

E) <u>CHARGING SYSTEMS, REPLACEMENTS PARTS, ACCESSORIES AND TEST</u> EQUIPMENT

The Police and Fire Department maintains an extensive inventory of batteries and battery charging equipment for Motorola transceivers. Special rooms have been constructed at our facilities to accommodate wall-mounted charging apparatus and secure storage. If another manufacturer's transceivers were purchased. Another complete battery charging system would also have to be purchased and installed. Because of space restrictions, it is doubtful that the additional charges could be installed in many of the radio rooms.

Both the Police and Fire Department maintains a substantial inventory of replacement parts for Motorola radio equipment. In addition to qualifying for a substantive parts price discount, any specialized Motorola part or component can be acquired in less than twenty-four (24) hours. If another manufacturers equipment was acquired, a start-up replacement part inventory would have to be purchased at additional cost and there is no guarantee that a discount rate would be applied to the parts.

Police and Fire Departments portable transceivers required the used of specialized accessories to permit the user to wear the transceivers while on duty. These includes special speaker microphones that can be worm under protective clothing, and special cases they are fastened to the belt. The inventory of these accessories are extensive, and all carrying devices are custom sized to fit Motorola transceivers. If another manufacturers product is purchases, an entirely new set of portable transceiver accessories including ample spares will have to be purchased.

The Police and Fire Departments maintains virtually all of their Motorola Radio equipment. Each technician has a custom designed workstation that is outfitted with specialized electronic test equipment. The specific models of test equipment that has been purchased is configures to test and interface with Motorola transceivers. Many of the test equipment components are computerized and utilizes software programs designed to maintain specific MOTOROLA transceivers. If another manufacturers products are purchased and extensive array of expensive electronic test equipment must also be purchased to service these transceivers.

OTHER:

Certain radio transceivers that were included in the original term agreement have been removed from this agreement because the equipment is available from other authorized Motorola radio distributors. The equipment remaining in the proposed agreement is used in Public Safety applications and must be compatible with the EXISTING POLICE and FIRE RADIO Infrastructure, as well as, the radio identification and status component of the new Office of Emergency Management and Communications, Police and Fire Computer Aided dispatch systems.



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IMPORTANT: PLEASE READ AND FOLLOW THE INSTRUCTIONS FOR COMPLETING
THE PROJECT CHECKLIST AND CONTACT THE APPROPRIATE TEAM LEADER IF YOU
HAVE ANY FURTHER QUESTIONS. ALL INFORMATION SHOULD BE COMPLETED
INCLUDING THE SUPPLEMENTAL CHECKLIST REQUIRED BY THE SPECIFIC CPAC TEAM. ATTACH

ALL REQUIRED MATERIALS AND SUBMIT FOR HANDLING TO THE DEPARTMENT OF PROCUREMENT SERVICES, ROOM 403, CITY HALL, 121 N. LASALLE STREET, CHICAGO, ILLINOIS 60602.

PROJECT _O	
PROJECT 9-28-04	Contact Person: ROCHELLE SIMEON
ID No (Spec. RX. Project).: 16661	Tel: 6-9411 Fax: 6-9120 E-mail:
Department: OEMC	Project Manager:
Bureau: Finance	Tel: Fax: E-mail:
Contract No (if known):	Estimated Value \$
Project Title/Description: MotoRola PARIS +	SERVICE
SCOPE STATEMENT	
/	
attached is a detailed scope of services and/or s	pecification
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IMPORTANT: THIS IS A CRITICAL PORTION OF YOUR SU	IBMITTAL IN ORDER FOR A TEAM TO ACCEPT YOUR
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Requesting Pre Bid/Submittal Conference?Yes	No Requesting Conference be Mandatory?YesNo
Requesting Site Visit? Yes	

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CITY OF CHICAGO PURCHASE REQUISITION

Copy (Department)

DELIVER TO:

REQUISITION: 16661

PAGE: 1

DEPARTMENT: 58 - OFFICE OF EMERGENCY COMMUNICA

1411 W. MADISON
Chicago, IL 60607

REQUISITION: 16661

PAGE: 1

DEPARTMENT: 58 - OFFICE OF EMERGENCY COMMUNICA

PREPARER: Rochelle D Simeon

NEEDED:
APPROVED: 9/27/2004

REQUISITION DESCRIPTION

MOTOROLA RADIO PARTS ANS SERVICE FOR NEW SOLE SOURCE PURCHASE ORDER, OLD#T25665 T SPECIFICATION NUMBER: 28728

COMMODITY INFORMATION

	ITEM				QUANTITY	UOM	UNIT COST	TOTAL COST
1	7257862120				225.00	Each	0.00	0.00
	RECEIVERS, RADIO -	RECEIVER, MESSAGE,	W/BELT CLIP	VIBRA PAGE.	W/REM. HOLSTI	ER, POWE	ERED BY AAA	

BATTERY, ALPHA NUMERIC, ADVISOR GOLD UHF, POCSAG MODEL # AO4QWB5962-A

SUGGEST	ED VEN	DOR: N	MOTOROLA C	& E, INC		REQUESTED BY: Rochelle D Simeon								
DIST	BFY	FUND	COST CTR	APPR	ACCNT	ACTV	PROJECT	RPT CAT	GENRL	FUTR	Dist. Amt.			
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LINE	ITEM	QUANTITY	UOM	UNIT COST	TOTAL COST
2	7257461235	2,455.00	Each	0.00	0.00

RADIOS, MOBILE - 20-40 WATTS, CHANNEL SCAN, MDC1200 SIGNALLING, W/O ANTENNA, SPEAKER, MICROPHONE, ALPHA-NUMERIC DISPLAY, DASH MOUNT, MISC. MOUNTING HARDWARE, SPECTRA ASTRO UHF MODEL #T99DX163W ANALOG OPERATION

SUGGES	TED VEN	DOR:				REQUEST	ED BY: F	Rochelle D Simeon			
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LINE	ITEM	QUANTITY	UOM	UNIT COST	TOTAL COST
3	7257461237	244.00	Each	0.00	0.00

RADIOS, MOBILE - TRUNK MOUNT OF SPECTRA ASTRO T99DX163W, MODEL #W496

SUGGES	TED VEN	DOR:				REQUEST					
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LINE	ITEM		QUANTITY	UOM	UNIT COST	TOTAL COST
4	7257461280		3,122.00	Each	0.00	0.00

RADIOS, MOBILE - 25-50 WATTS, CHANNEL SCAN, MDC1200 SIGNALLING, W/O ANTENNA, SPEAKER, MICROPHONE, ALPHA-NUMERIC CONTROL HEAD, MISC. MOUNTING HARDWARE, SPECTRA ASTRO VHF MODEL #T99DX095W ANALOG OPERATION

SUGGEST	ED VEN	DOR:					REQUEST	EDBY: R	Simeon		
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